

((\$000))

Project Paper

FY 76	\$225
I.Q.	50
FY 77	225
FY 78	275

Project Title: SCIENTIFIC AND TECHNICAL SUPPORT

- Activities: (a) League for International Food Education*
(b) Committee on International Nutrition, Food and Nutrition Board of the National Academy of Sciences

Project Number: 560-799 - GTS

KPA #10 - National Nutrition Planning and Motivation

I. Contribution of, and need for, these services:

The Need

All LDCs have serious nutrition problems.

"The food, population and energy crises reaffirm the urgency and thrust of the new directions of our development assistance programs....

--Congress restructured foreign assistance legislation two years ago to focus our development assistance program on the fundamental problems of the poorest majority:

- ** food and nutrition;
- ** population and health;
- ** education and human resource development.

—The age-old problems of poverty are complex and cannot be quickly and easily solved. Effective attacks will require:

- ** difficult self-help efforts by the developing countries;
- ** sustained, imaginative, and innovative assistance programs;
- ** sufficient resources in manpower, technology, and capital to fill the critical gap."

(FY 1976 Submission to Congress/Summary.
May 1975)

The Contribution

AID seeks to persuade governments to recognize malnutrition as a major hindrance to development and a matter of public concern and to reflect this recognition in national social and economic planning, in addition to sector planning in Ministries like Health and Agriculture. AID encourages and assists in developing information on which countries can base appropriate interventions and chose among alternative strategies.

*formerly 560-804

A.I.D. policy planners have become increasingly aware of the importance of nutrition in LDC development. LDC demands for nutrition related technical assistance are increasing. Recognition of the demands are stated in A.I.D.'s Congressional Presentation and in the Secretary of State's speech at the World Food Conference (Rome, November 1974):..."double the world food production and improve its quality . . . priority areas of . . . Vitamin A, iron deficiency anemia, and nutrition surveillance . . ."

AID's assistance under this project through the Office of Nutrition began in 1968 to provide technical expertise from two activities: (1) The League for International Food Education (L.I.F.E.), and (2) The Committee for International Nutrition, Food and Nutrition Board of the National Academy of Sciences (NAS/F&NB/CIN). Both L.I.F.E. and NAS provide an increasingly valuable vehicle for providing necessary expertise in their particular fields of competence. They provide scientific and technical expertise of the highest order in nutrition, food technology and food science and related areas.

- L.I.F.E.: (a) provides food technology and food science backstopping to the voluntary agencies activities;
- (b) maintains a roster of food scientists by area of specialization, private or public sector affiliation, and their availability to respond to queries from their desks or in the fields;
- (c) publishes a monthly newsletter on food technology and related subjects and disseminates reference lists of technical publications to the international nutrition community;
- (d) conducts workshops and publishes reports upon AID request such as (1) Nutrition and Productivity; (2) Meeting Food Packaging Needs in Developing Countries, and (3) Manual of Instructions for Food Storage Practices Workshop in Dakar Nov. 1974, in Manila April 1975 and to be used in Honduras January 1976.
- (e) maintains food product information on a worldwide basis of commercial, institutional, and developmental categories, and
- (f) responds to technical queries, both general and specific, from the LDC Voluntary Agencies, and USAIDs.

NAS/F&NB/CIN at semi-annual committee meetings:

- (a) considers and advises A.I.D. on mutually-agreed (NAS&AID) upon agenda items
- e.g.: 1. interactions of nutrition and infections
2. simplified assessment of certain indicators of malnutrition (nutrition survey methodology)
3. committee assessments on fish protein.
- (b) conducts mini-conferences upon AID request and, where conference recommendations merit it, publishes a report,
- e.g.: 1. "Nutrition, Brain Development and Behavior" (1972)
2. "Nutrition and Fertility Relationships: Implications for Policy and Action" (1973).

Both L.I.F.E. and NAS through their respective memberships offer technical assistance to LDCs in support of Nutrition projects by (a) providing expert advice and technical assistance, and (b) answering selected specific technical key questions in depth through knowledgeable individuals or, if needed, by ad hoc task force, mini-conferences, et cetera. This expertise is available directly to the LDCs and to public or private organizations working in LDCs.

Other TA/N projects address themselves to specifically identified key problem areas. However, this project cuts across those problems by providing scientific and technical backstopping to nutrition activities in all the key areas of TA/N concern. It, thus, is a resource for the regional bureaus, the USAIDS, the LDCs, the Volags, the FFP, and for the nutrition community to draw upon.

<u>II. Services to date:</u>	<u>Contract/Grant No.</u>	<u>Man-months</u>
(a) League for International Food Education (L.I.F.E.)	AID/ta-C-1071 2/1/74-1/31/75	46
	AID/csd-1915 Amdt. 10 12/31/72-1/31/74	41
	Amdt. 9 12/31/71-12/31/72	38

Expertise

Nine scientific and technical societies^{1/} now form the consortium of L.I.F.E. responding with (1) information to technical assistance queries; (2) a monthly newsletter; (3) roster of food technologists, cereal chemists, and other nutrition-related personnel available at their desks or at site to analyze requests and advise; (4) technical bibliographies, and with (5) problem-solving skills for nutrition and food technology queries.

Began December 1, 1968, the L.I.F.E. consortium has steadily grown and developed. Six professional societies with scientific and technical expertise in nutrition and food technology comprised L.I.F.E. in the beginning. These societies offered expertise from private industry, the public sector, and academia. The member societies through L. I.F.E. offered and continue to donate their technical skills with manpower savings to A.I.D. and to apply also A.I.D.'s policy of increasing its use of the private sector.

1/American Association of Cereal Chemists

American Chemical Society
Volunteers for International Technical Assistance
American Institute of Nutrition
Institute of Food Technologists
American Oil Chemists' Society
American Society of Agronomy
American Institute of Chemical Engineers
American Society of Agricultural Engineers

Regional Involvement

Inquiries come primarily from the scientific and technical communities in the LDCs and from Volag personnel in the field. Technical information and assistance from L.I.F.E is provided to every A.I.D. geographic region.

In depth answers are required in 70-80% of the projects. These projects vary from major enterprises to one-man prospective ventures, all nutrition-related. It is through the LDC scientific and technical community, Volags, and FFP that LDC queries most frequently are forwarded to L.I.F.E. The nature of the inquiries reveal many of the ways the world is seeking to utilize its indigenous crops through the application of modern food technology to make more food available and raise the level of nutrition in its communities.

A few examples are: (a) The Nepalese government fears its children have become too addicted to western sweets and wants to learn about the production of high protein confections. (b) Researchers in Colombia, Haiti, Malaysia and Thailand inquire about the technologies that can be used to provide edible proteins from oilseeds such as sunflower seeds--work that is speeded by help from L.I.F.E. (c) Ethiopia wants information on the food value of cassava leaves. L.I.F.E. responds with in-depth answers.

USAIDS, and AID/W, Volags, LDC and host country personnel receive the monthly L.I.F.E. newsletter. It disseminates information about recent developments in nutrition; food production, processing and distribution; conferences and training opportunities, sources of published information, and projects and programs in other countries. The newsletter serves as a network linking scientists in the low-income countries with colleagues and developments in the rich countries.

<u>Activity</u>	<u>Contract/Grant No.</u>	<u>Man-months</u>
(b) National Academy of Sciences, National Research Council; Food and Nutrition Board, Committee on International Nutrition (NAS/F&NB/CIN)	AID/csd-2570 Amdts. 1-9 5/1/75-4/30-76 4/1/74-3/31/75 3/31/73-3/31/74	7.2 6.0 6.0

Expertise

The Committee on International Nutrition examines in depth specific topics as requested by TA/II. This mechanism gives A.I.D. access to world expertise in food science, nutrition and nutrition-related sectors to help solve the LDC malnutrition problems.

Semi-annual meetings of the Committee and ad-hoc task force or mini-panel meetings of its sub-committees review pertinent topics of AID concern e.g., Vitamin A, iron deficiency anemia, nutrition and dietary surveillance and other nutrition-related activities.

Regional Involvement

The activity and project are interregional. The results of these activities help A.I.D. to deal with nutrition problems throughout the developing world.

For example, the Committee was instrumental in the development (at A.I.D. request) of a quick, low-cost methodology for conducting nutrition surveys, such surveys are an integral part of any national nutrition plan and provide baseline data that delineates problem areas. The methodology now provides a basis for the protocol used in nutrition surveys being conducted by CDC and UCLA under A.I.D. contracts in Nepal, Sri Lanka, Liberia and Morocco.

III Evaluation of Services

This field support project offers expertise of an excellence not otherwise available within A.I.D. Through the activities in this project, A.I.D. can reach skills in the nutrition and food technology community whether the expertise is in the private or public sector, in government, or in academia. This project offers manpower savings for A.I.D. and frequently at a minimum cost of travel and per diem only.

This field support project consists of two activities:

(1) The League for International Food Education (L.I.F.E.) provides a mechanism for A.I.D. to use the private sector through the members of the nine professional societies that comprise the Consortium thus promoting the Agency's policy to increasingly involve the private sector in LDC development. L.I.F.E. is a voluntary agency; supporting its work helps implement, another A.I.D. policy -- use of voluntary agencies in carrying out nutrition goals. L.I.F.E. also provides technical expertise to other Volags in food technology and nutrition, reducing the need for such organizations to spend time, money and funds to develop this technical expertise for themselves. L.I.F.E. uses its roster of scientific and technical personnel to respond to technical queries in food technology and other nutrition fields.

Under L.I.F.E., individual committees within technical societies have emerged to work on specific, broad issues:

e.g., COIN = Committee on Improving Nutrition of the American Association of Cereal Chemists on Composite Flour Technology: assistance in improving the nutrition quality of bread and pasta.

ACS = American Chemical Society Agricultural and Food Chemistry Division provides protein evaluation service to LDCs. Through a L.I.F.E. liaison committee, free analytical services to assist field workers in determining the protein quality of indigenous foods are available.

AICHE = American Institute of Chemical Engineers: assistance in food waste utilization in the LDCs. A grant is being requested to pinpoint pilot areas in which technologies have been developed that may serve as models for other countries with similar potential for converting food wastes.

IFT = Institute of Food Technologists: To identify LDC food technologists on a worldwide scale and to work under a Volag grant to compile the roster of Latin American food technologists.

(2) The Committee on International Nutrition of the Food and Nutrition Board, National Academy of Sciences, meets on a semi-annual basis to deal with an agenda mutually agreed upon by A.I.D. and NAS/F&NB/CIN. On our behalf, it draws upon a wealth of knowledge and expertise available only from the combined resources of academia, government, and industry to provide technical opinions on nutrition activities. Mini-panel meetings of experts brought together by NAS provide guidance in specific nutrition activities and in our efforts to combat malnutrition worldwide, e.g. on Priorities for Research in Avitaminosis A and Xerophthalmia, on Priorities for Research on Iron Deficiency, on Simplified Dietary Assessment in Developing Countries, and on Evaluation of Protein Quality. Further discussions on "Nutrition and Fertility Relationships: Implications for Policy and Action" (Conference and Report in 1973) are being scheduled.

IV. Expected Trend

A.I.D. expects to expand its use of the services provided under this project. The technical expertise available provides answers that are essential to rational nutrition planning and programming.

(a) L.I.F.E. will provide food technology and nutrition-related guidance to the voluntary agencies. Itself a voluntary agency, L.I.F.E. has been providing responses to individual technical queries from LDC personnel, Volag and others. Now, it will expand its services to assist in planning, implementing and monitoring Volag grants to scientific societies. Currently in this fiscal year of 1976, grants have been made to the Institute of Food Technologists (IFT) and to the American Institute of Chemical Engineers (AIChE), two member societies of the L.I.F.E. Consortium.

More Consortium society activities are under consideration. An AACC/COIN committee member is drafting a proposal for a grant on the study of post-harvest grain losses. The American Institute of Nutrition (AIN) representative is to develop a possible AIN/L.I.F.E. Committee to explore the needs of the voluntary agencies that AIN can backstop. The existing Volunteers in Technical Assistance (VITA) publications are to be coordinated with the L.I.F.E. Newsletter to promote dissemination of nutrition information to VITA's worldwide list of readers, primarily the voluntary agency community.

The members of each professional society have specific expertise in their scientific and technical area available upon request. Not only the voluntary agencies but the LDC community is steadily increasing their requests for nutrition and nutrition-related information as a basis for decisions in solving their nutrition problems.

As the existing committees (examples listed in III) and other individual committees (to be formed by consortium society members with the express purpose to work on issues pertinent and relevant to malnutrition) provide services, both domestic and international travel costs will increase. Much is being done now to provide advice and expertise from "their desks" but travel to the LDC community to analyze the causes of malnutrition and recommend interventions becomes imperative at certain stages of problem solving. L.I.F.E. and TA/N will approve the increased travel and its related costs as requests are received.

IV. (b) NAA/F&NB/CIN

Currently the Committee on International Nutrition with the assistance of mini-panels is considering programs on research and interactions to alleviate vitamin deficiencies, to combat iron deficiency states, and to devise a rapid dietary survey methodology. Further consideration is given by mini-panels from the various standing sub-committees e.g. Subcommittees (1) Subcommittee on Interactions of Nutrition and Infections and (2) Nutrition and Fertility.

A special workshop or mini-conference on "Effects of Infection on the Nutrition of the Host" is desired by A.I.D. A preliminary agenda and a list of proposed participants to attend the workshop are being drafted.

The Agency soon will request the following to be considered by the NAS.

- Nutrient requirements under stress
- Nutritional needs for well-being and optimum performance
- Management of diarrhea through appropriate feeding
- Review of programs of amino acid fortification
- Relative nutritional significance of protein and calories

The required expertise is limited in AID/W and almost non-existent in the USAIDs and in the LDCs. This expertise and guidance in food technology and food science is available and can be provided or augment their capacity to respond to the nutrition problems of the LDCs under this project.

V. Alternate Sources

The expertise is unique to the point of being non-existent at the same level of quality from other sources.

A. The League for International Food Education (L.I.F.E.) is a consortium of nine U. S. scientific and technical societies each the leading one in its technical area. L.I.F.E. identifies the expertise required, secures a response at a minimal cost advantageous to A.I.D. and the concerned LDC. An alternate source with the excellent qualifications to accomplish a similar workscope at this level of funding is not available.

B. The National Academy of Sciences was established in 1862 for the specific purpose of advising the U. S. government in scientific matters. The Food and Nutrition Board was created in 1940. (When the Board was first formed, its priority was to create a nutritional policy that would enable the U.S. to feed not only its own citizens but also many of its allies. Now one of its primary objectives is to create a continuing nutritional surveillance program.) The NAS and its National Research Council of which the Food and Nutrition Board and the Committee of International Nutrition is a part, are private, independent and non-profit. They are required by charter to act as scientific advisors to the U. S. Government. The NAS membership is drawn from various universities, private industry, scientific and technical foundations, both domestic and foreign, for the best expertise available anywhere. It is unique and enjoys unmatched prestige in the scientific community.

VI. Other Issues

Is this project useful to A.I.D. and to the nutrition community? Can it be financially independent? As long as there is a need for assistance in combatting malnutrition in the LDCs and in the USAIDs, A.I.D. can secure expertise to respond to the need under this project. The information and the expertise will be accepted by the LDCs, the USAIDs, and the host government personnel for dealing with broad issues and specific problems related to combatting malnutrition worldwide.

Individual members of the Consortium societies and those of the Committee and its mini-panel have been and are available and have made and can continue to make their services available frequently without compensation. Short-term technical assistance to personnel working on the problems of developing countries is frequently available for travel and per diem costs only. Private industry and universities have continued to pay the expert's salary and related expenses during these short-term assignments.

Limited reimbursement for expenses incurred in administering those A.I.D. requested services is required and will continue to be required as long as A.I.D. is involved in Food and Nutrition goals and assists by providing sound scientific and technical information and expertise to combat malnutrition. In view of the above we believe the project is useful but it is difficult to see how this project can become financially independent of A.I.D. support.

VII. Resources required for these activities as shown on the Estimated Budget Table are:

The greatly expanded use of services provided by L.I.F.E. under this project is to provide technical backstopping to the voluntary agencies. The other services provided by L.I.F.E. will continue. In brief, these services are:

L.I.F.E.: -- provides technical backstopping to the voluntary agencies
-- maintains a roster of food technologists and food scientists
-- disseminates technical information through a monthly newsletter and selected reference lists
-- provides a technical question answering service worldwide to queries on nutrition and nutrition-related subjects

NAS/F&NB/CIN: -- provides definitive advice on questions of nutrition science
-- provides judgement on priorities to be given on nutrition intervention alternatives
-- reviews interdisciplinary issues: nutrition and fertility, nutrition and infection, et cetera.

Only by expanded use of these services can we make their resources in science and technology available in the quality and in the quantity required to assist the LDCs, the Volags, and others to solve their nutrition and nutrition-related problems for the poorest majority.

Estimated Budget
 Scientific and Technical Support Project which includes
 (a) League for International Food Education (L.I.F.E.)
 (b) Committee on International Nutrition (CIN/FEAN/IAS)

Amounts required for these activities are:

Salaries and Fringe Benefits Totals		Man-months		FY 1976	L. q.	FY 1977	FY 1978
(a) L.I.F.E.	FY '75	4.2		\$ 27,200	22025	87,700	110,735
Executive Director (equivalent GS-15(3)-\$33,012)		35 *		69,500 ^{1/}	17,425 ^{1/}	63,000 ^{1/}	86,600 ^{1/}
Staff Assistant (" GS- 9(3)-14,553)		10	GS-15(4)	23,760	7 175	29,455	30,320
Secretary (" GS- 5(3) = 9,473)		10	GS- 9(4)	12,310	3 078	12,685	13,055
Part-time Consultants		10	GS- 5(4)	3,150	2038	8,400	8,645
(Contractors and Research Assistants under Fed. Sec 157, ins. Sec.-201)		5		6,246	2141	6921	19,341
				11,804	2993	11,839	15,239
(b) L.I.F.E.		7.2		15,500	4600	18,400	24,135
Executive Director (35%)		4.2		12,700	3128	12700	16,412
Staff Assistant (25%)		3.0		3 300	782	3300	4,103
(fringe benefits) (15%)				2400	690	2400	3 620
			Totals	\$ 84,556	22957	85,200	97,565
(c) L.I.F.E.				46,455	19250	46,700	61,400
Travel & per diem DC staff & consortium members				25 130	5000	24,400	34,500
Postage				13 150	3000	14 000	15 000
International				12,000	2000	10,400	19,500
Insurance				600	150	700	900
Newsletter				16,526	4130	17 000	20,000
Other Printing				3,000	700	3 200	4000
Temporary help				1,200	300	1 400	2000

BEST AVAILABLE COPY

	<u>FY 1976</u>	<u>I.a.</u>	<u>FY 1977</u>	<u>FY 1978</u>
(D) NAS/FGMS/CIN	<u>28,500</u>	<u>12,877</u>	<u>28,500</u>	<u>36,165</u>
Travel and per diem estimated:	<u>29,000</u>	<u>16,000</u>	<u>23,500</u>	<u>24,165</u>
Domestic (42 Roundtrips)	<u>18,000</u>	<u>7,000</u>	<u>19,000</u>	<u>17,165</u>
International (28 Roundtrips)	<u>11,000</u>	<u>3,000</u>	<u>9,500</u>	<u>7,000</u>
Materials and Services (reporting, reproduction, supplies 9,500)		2 677	10,000	12,000
III Indirect Costs	<u>52,344</u>	<u>5,018</u>	<u>52,100</u>	<u>66,700</u>
(a) L.I.F.E. (est. 20%) rent, telephone, supplies, postage,	<u>29,344</u>	<u>3,485</u>	<u>29,000</u>	<u>37,000</u>
(b) NAS/FGMS/CIN (est. 33%)	23,100	1 533	23,100	29 700
Grand Totals of I, II, and III (above)	(a) <u>165,000</u>	<u>31,190</u>	<u>145,000</u>	<u>185,000</u>
	(b) <u>50,000</u>	<u>18,810</u>	<u>80,000</u>	<u>90,000</u>
	\$ 225,000	50,000	225,000	275,000

As of 10/11, 100 months of regular staff time is to be released beginning in FY 1976 to provide time to develop more scientific and technical activity related to nutrition but not specific to tasks in contract.

2/ American Chemical Society as of January 31, 1976, can not renew their lease so new office space, probably commercial at a higher rate, will be required for L.I.F.E.

BEST AVAILABLE COPY

The standard TA Bureau policy calls for approval of field support projects for a three year period after review and favorable recommendation by the Research and Development Committee. Although the burden of proof at the end of the three year period rests with the proponents of an extension, a termination date normally is not assigned to the project unless/until a three year review determines that it should be phased out. This procedure highlights that this is a "level of effort" activity which use is largely determined by external regional bureaus' and TAB's needs rather than one with outputs specified in advance.

In addition to the three year review, an annual appraisal of the activity is made by a committee including technical representatives of the regional bureaus which ascertains whether the contract continues to be relevant, if the level of funding corresponds to demands and if advice provided has been both relevant and utilized by the regional bureaus, Missions and LDCs.